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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,113	08/18/2006	Jae-Chun Hyun	3884-0129PUS1	2095
2292	7590	06/04/2009	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				GUILL, RUSSELL L
ART UNIT		PAPER NUMBER		
2123				
			NOTIFICATION DATE	DELIVERY MODE
			06/04/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/590,113	HYUN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Russ Guill	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 18 August 2006.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-5 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-5 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 18 August 2006 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>8/18/2006</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____ .

## DETAILED ACTION

1. This Office action is a first Office action on the merits for application 10/590113. Claims 1 – 5 have been examined. Claims 1 – 5 have been rejected.

### *Specification*

2. The specification is objected to because: Claim 1 and the specification on pages 6 - 8 and 12 - 14 include equations that are not clearly legible, and thus resulted in transcription errors in claim 1 in the Patent Application Publication 2007/0179765. A legible copy of the equations is required. Please refer to 37 CFR 1.52 (a) (iv) and 37 CFR 1.52 (a) (v).

### *Claim Objections*

3. Claim 1 is objected to because of the following informalities: the claim recites on page 25, line 20, "PTT". The first use of an acronym should have the full expanded meaning of the acronym defined, and followed by the acronym in parentheses.
4. Claim 3 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. It appears that claim 3 could be infringed without infringing claim 1 (MPEP 608.01(n), section III. Infringement Test).
5. Claim 4 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. It appears that claim 4 could be infringed without infringing claim 1 (MPEP 608.01(n), section III. Infringement Test).

Art Unit: 2123

6. Claim 5 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. It appears that claim 5 could be infringed without infringing claim 1 (MPEP 608.01(n), section III. Infringement Test).

*Claim Rejections - 35 USC § 112*

7. The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1 - 5 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Regarding claims 1 - 5, the claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document, and the generally narrative claim language renders the claims vague and indefinite. The metes and bounds of the claims cannot be determined.

b. Regarding claim 1, the claim recites on page 24, in line 13, the term “λ”. The term appears to be undefined in the claim, and thus the metes and bounds of the claim cannot be determined.

- c. Regarding claim 1, the claim recites on page 24, in line 2, the term " $\eta_0$ ". The term appears to be undefined in the claim, and thus the metes and bounds of the claim cannot be determined.
- d. Regarding claim 1, the claim recites on page 25, line 19, "train rate tensor". The meaning of the phrase is unclear, and thus the metes and bounds of the claim cannot be determined.
- e. Regarding claim 2, the claim recites in lines 3 - 4, "the non-isothermal process model". The term appears to have insufficient antecedent basis. The metes and bounds of the claim cannot be determined.
- f. Dependent claims inherit the defects of their parents.

*Claim Rejections - 35 USC § 101*

9. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10. Claims 1 - 5 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

- a. Regarding claims 1 - 4, a valid process under 35 USC § 101 must either be (1) tied to a particular machine or apparatus, or (2) transform a particular article to a different state or thing. In order to qualify as a statutory process, the claim should positively recite the particular machine or apparatus to which it is tied,

for example by identifying the apparatus that accomplishes the method steps. A recitation of a computer in the preamble does not appear to be sufficient to tie the process to a particular apparatus. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

b. Regarding claim 1 and dependent claims, the claim limitations appear to be an abstract idea, which is non-statutory. The input data does not appear to be specific, but rather appears to be generic, and not particular in type and nature. The steps of the claim appear to be computation or manipulation of abstract data. Further, the claim appears to preempt all use of the mathematical equations of the claim because the claim would cover all substantial practical applications of the mathematical equations of the claim, and thus amount to a claim for the mathematical equations themselves.

c. Regarding claim 5, the claim is directed to an apparatus that implements the numerical scheme of claim 1. The apparatus is being claimed functionally rather than structurally, and thus the rejection of claim 1 immediately above similarly applies to claim 5.

*Allowable Subject Matter*

11. Regarding claims 1 - 5, any indication of allowability is withheld pending resolution of the outstanding rejections.

12. While the reference by Jae Chun Hyun et al., "Transient solutions of the dynamics in film blowing processes" appears to teach most of claim 1, the equations of claim 1 appear to differ by several terms from the equations taught in the reference.

*Conclusion*

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russ Guill whose telephone number is 571-272-7955. The examiner can normally be reached on Monday - Friday 9:30 AM - 6:00 PM.

14. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Any inquiry of a general nature or relating to the status of this application should be directed to the TC2100 Group Receptionist: 571-272-2100.

15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Russ Guill  
Examiner  
Art Unit 2123

RG

/Paul L Rodriguez/  
Supervisory Patent Examiner, Art Unit 2123